SCALE BLASTER®

The eco-friendly solution to hard water

SB-175

Installation & Operation Manual

Residential Unit • Indoor/Outdoor Installation

IDENTIFY THE SB-175 COMPONENTS

Your new **ScaleBlaster** SB-175 unit includes the following components:

1.) One (1) SB-175 power unit that works on 115VAC or 230VAC automatically. If 230VAC is desired, replace plug. This unit comes with a 5 foot power cord.

1.)

2.) Mounting brackets (4) and mounting bracket screws (4)

2.)

3.) Signal Cable (56') and four (4) nylon cable ties

4.) Warranty Card

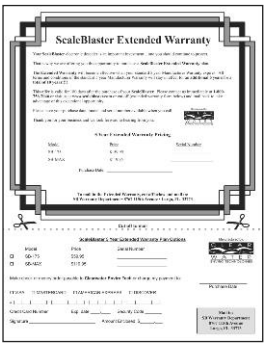
5.) Extended Warranty Card

6.) Installation & operation manual

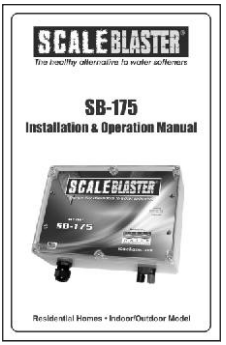
3.)

4.)

5.)



6.)



The ScaleBlaster unit can be installed on a horizontal or vertical Copper, PVC, CPVC and/or PEX pipe.

If a magnet will stick to your incoming water line, you have galvanized pipe. In this case, you will need to replace a small section of pipe, about 10-11 inches, with either pvc or copper pipe.

Before You Start Installing

Finding The Main Cold Water Pipe
The water shutoff valve is on the main cold water pipe. Install the **ScaleBlaster** unit on this pipe as close to where it comes into the house as possible. This will ensure that the outside spigots and kitchen are being treated.

If you cannot access the cold water pipe before it splits
Follow the main cold water pipe back as far as possible from the water heater and install the **ScaleBlaster** there. By doing this, all of the home's water may not be treated, and in some cases only the hot water may be treated. However, the hot water line is the most important to treat and is the main cause of lime scale formation.

Well Water Installation
For customers that are on a private well, the best place to install the **ScaleBlaster** unit is after the well's pressure tank. If that is not possible, the **ScaleBlaster** unit can be installed prior to the pressure tank.

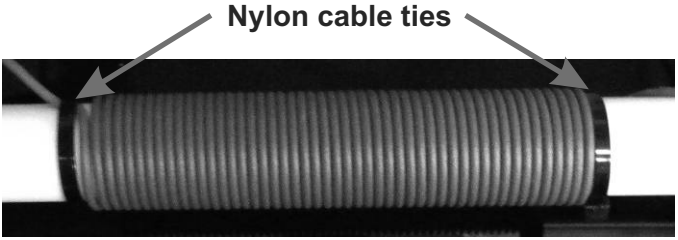
Softener Loop
The **ScaleBlaster** unit can be installed on a softener loop. Installing on a softener loop gives treatment to all of the water that a softener would treat. Water to the kitchen faucet and outside spigots may not be treated when the **ScaleBlaster** unit is installed this way.

Find The Pipe Size
If you do not know the actual pipe size, place a ruler in front of the pipe and measure the outside diameter. Use **Table 1** to determine the size of the pipe. The actual pipe size is always rated by the inside dimensions of the pipe.

Table 1

COPPER		PVC, CPVC & PEX	
Outside Diameter	Actual Size	Outside Diameter	Actual Size
5/8"	1/2"	.84"	1/2"
7/8"	3/4"	1.05"	3/4"
1 1/8"	1"	1.315"	1"
1 3/8"	1 1/4"	1.660"	1 1/4"
1 5/8"	1 1/2"	1.900"	1 1/2"
2 1/8"	2"	2.375"	2"

A Tight Wrap Is Very Important
It is extremely important to the effectiveness of your **ScaleBlaster** unit that the signal cable wire be wrapped correctly. If there are any gaps between the wraps, your **ScaleBlaster** unit will not work to its full capacity.



Example of a properly wrapped pipe. No gaps or loose wire wrappings allowed!

See chart on pages 6 & 7 to wrap the coil and to determine the proper number of wraps.

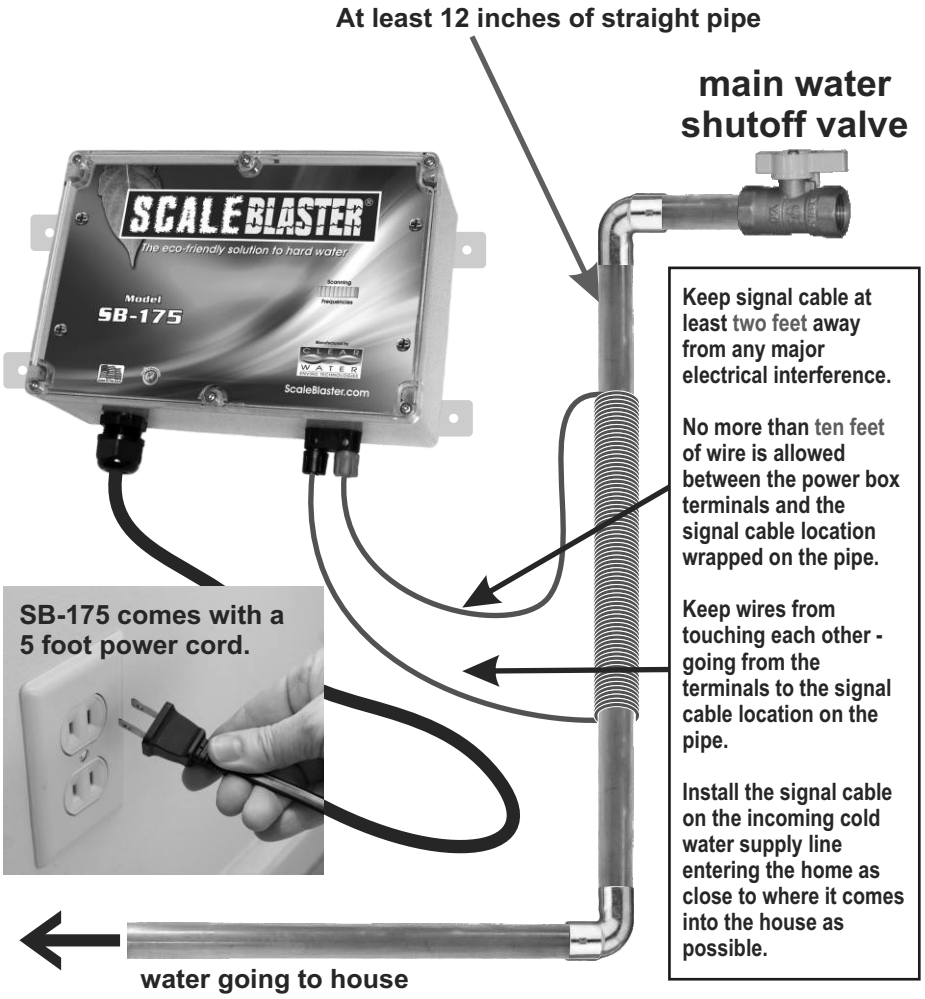
LOCATION OF THE SB-175 UNIT

1.) The most desirable place to install the unit is on the main water line that enters the house.

2.) The power unit should be mounted on a wall or other solid surface within five feet from an electrical outlet and within ten feet from where the pipe will be wrapped.

3.) Once the main water inlet pipe to the house is located, identify a section of pipe that is at least 12 inches straight and at least two feet away from any major electrical interference, example - an electric motor.

Installs on the incoming water supply line


At least 12 inches of straight pipe
main water shutoff valve
SCALEBLASTER
The eco-friendly solution to hard water
Model
SB-175
ScaleBlaster.com
Keep signal cable at least two feet away from any major electrical interference.
No more than ten feet of wire is allowed between the power box terminals and the signal cable location wrapped on the pipe.
Keep wires from touching each other - going from the terminals to the signal cable location on the pipe.
Install the signal cable on the incoming cold water supply line entering the home as close to where it comes into the house as possible.
SB-175 comes with a 5 foot power cord.
water going to house

Important! For best results, wrap signal cable on a straight section of pipe of 12" or more. Keep the signal cable as far away as possible from tees, elbows, couplings, valves and any curved pipe.

MOUNTING THE POWER UNIT

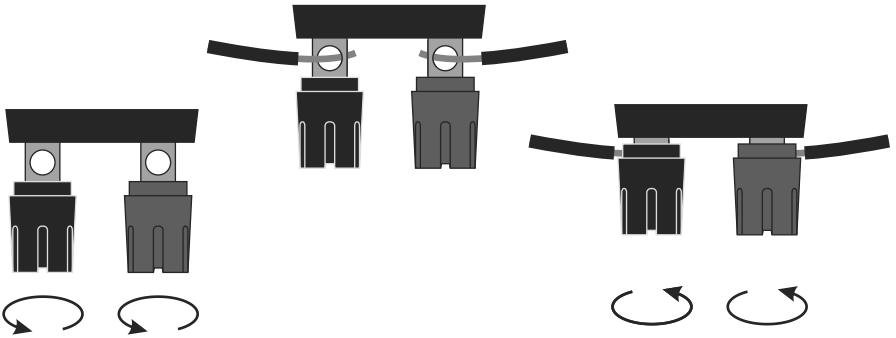
The unit can be mounted indoors or outdoors in an upright vertical position on a wall or other non-enclosed area. **NOTICE: If mounting the power unit outside, it must be kept out of the direct sunlight.** The installer must supply the mounting screws for the type of surface the unit will be mounted on. (We recommend a number 8 screw)

Mount power unit on a solid surface using enclosed mounting brackets and screws.

LED light. See details on bottom of page 7.

INSTALLING THE SIGNAL CABLE

Insert the pre-stripped end of the signal cable into one of the two signal terminals and tighten. Follow instruction on how to wrap pipe with wire on next two pages (pages 6 &7).



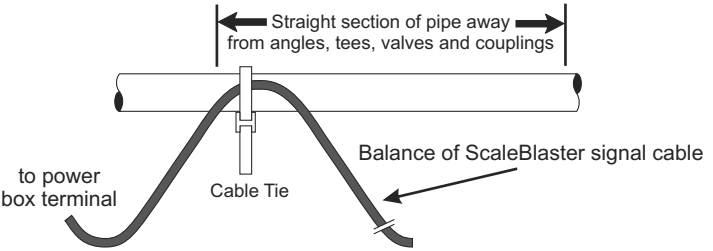
Twist down to see hole to put wire in, put stripped wire in hole (making sure the two bare wires do not touch) then twist up to tighten.

Wrapping the pipe with the ScaleBlaster Signal Cable

PVC, CPVC, or PEX PIPE INSTRUCTIONS

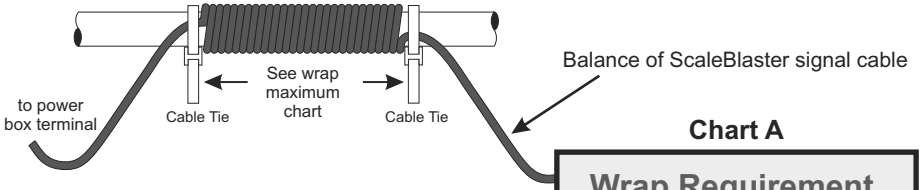
1.) Insert the pre-stripped end of the signal cable into one of the two signal terminals and tighten.
2.) Route the signal cable to the inlet pipe. Hold cable parallel and next to the pipe.
3.) Wrap one of the cable ties tightly so that the signal cable is secured to the pipe. **(Figure A)**

Figure A


Straight section of pipe away from angles, tees, valves and couplings
Balance of ScaleBlaster signal cable
to power box terminal
Cable Tie

4.) Wrap the loose end of the signal cable securely around the pipe - in any one direction – the proper number of turns as noted in **Chart A.**
5.) Make sure the wraps are flush against one another, wrapped tightly and not overlapping. Continue until you reach the recommended number of wraps.
6.) Wrap a second cable tie at the end of the wrappings securing the signal cable tightly. **(Figure B)**

Figure B



7.) Route the loose end of the signal cable back to the power box. Trim excess cable to length.
8.) Carefully strip the outer plastic shield from the end of the signal cable leaving 1/2" to 5/8" of bare cable. Twist the bare cable and insert the end in the other terminal post on the power box and tighten the receptacle post.

NOTE - To remove the wire, loosen the receptacle post and pull out the wire.

Never under wrap or over wrap the coil.

Chart A

Wrap Requirement PVC or PEX pipe*

SB-175

Pipe Size*	Layers / Wraps
1/2"	Double** 38 wraps
3/4"	Single 70 wraps
1"	Single 57 wraps
1 1/4"	Single 50 wraps

* inside dimensions

****Example - Double/38 wraps is a total of 76 wraps. 38 wraps on first layer and 38 on second layer**

COPPER PIPE INSTRUCTIONS

1.) Follow the same instructions in **steps 1-6** for PVC, CPVC and PEX pipe. **Use Chart B for Copper**

2.) Instead of a single coil wrapping around the pipe, a second one is added for copper pipe.

3.) YOU MUST KEEP THE SECOND WRAPPING IN THE SAME DIRECTION AS THE FIRST! Wrap right over the top of the first layer continuing in the same wrapping direction as the first layer – clockwise or counterclockwise. This second layer must also be tight and touching the prior wrap. **(Figure C)**

Figure C

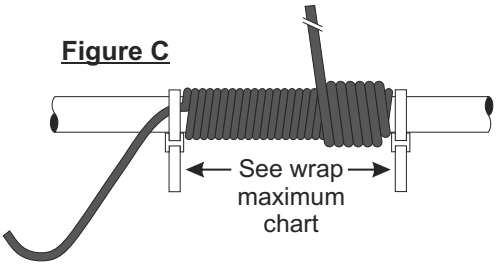


Chart B

Wrap Requirement COPPER pipe*

SB-175

Pipe Size*	Layers / Wraps
1/2"	Double** 50 wraps
3/4"	Double** 50 wraps
1"	Double** 45 wraps
1 1/4"	Double** 40 wraps

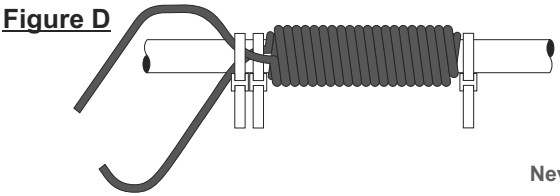
* inside dimensions

****Example - Double/50 wraps is a total of 100 wraps. 50 wraps on first layer and 50 on second layer**

Never under wrap or over wrap the coil.

4.) Wrap a third cable tie around the pipe and both wires. Pull the cable tie tight. **(Figure D)**

Figure D



5.) Follow same instructions in **steps 7-8** for PVC, CPVC and PEX pipe.

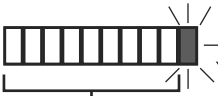
ACTIVATING THE SYSTEM

1.) Plug control box into electrical outlet after mounting the control box on the wall and wrapping the signal coil.

2.) The LED light on the front panel should light up.

3.) Operation of the **ScaleBlaster** SB-175 system can be confirmed by observing the illumination of the LED indicator located on the face of the power unit. Power on - green light on far right side will stay lit **(Figure E)**. When pipe is wrapped and unit is turned on the far right light will stay lit and the other lights will oscillate back and forth **(Figure F)**.

Figure E



Signal Indicators

Power Indicator

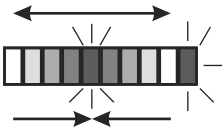


Figure F

MAINTENANCE

The best feature of the **ScaleBlaster** SB-175 is that there is NO MAINTENANCE REQUIRED. No salt, batteries, moving parts or costly repairs. Just check the LED light for proper operation.

WARRANTY & EXTENDED WARRANTY

This unit comes with a 5 year warranty to be free from defects in material and workmanship under normal use from the date of purchase. A 5 year extended warranty is available on this unit at a very minimal cost.

90-DAY MONEY-BACK GUARANTEE

We are so sure you will be satisfied with **ScaleBlaster**, we are offering a 90-day money back guarantee from the date of purchase if you are not 100% satisfied with the product.

ENJOYING THE SCALEBLASTER SYSTEM

There is no maintenance with the **ScaleBlaster** unit itself! No bags of salt to haul around, wasted water or batteries to change. Best of all, you are protecting the environment!

Allow up to 90 days to realize the full effects. Initial descaling may make things worse for awhile, especially in the dishwasher and aerators. This is normal! Simply clean out the screens or aerators. With dishwashers, we recommend cutting back on soap usage (unless you have been using a water softener). In July of 2010, manufacturers of dishwasher soap detergents cut back on phosphates - resulting in an increase in spotting and cloudiness. We recommend using ***Cascade Action Pacs with Dawn or Cascade All-in-one Action Pacs*** for best cleaning results. Another product that works best is ***Lemi Shine.*** You may also add white vinegar in the rinse cycle.

After the first 90 days, we strongly recommend you drain out your water heater. You will be amazed at what **ScaleBlaster** has cleaned out of your pipes!

SCALEBLASTER®

The eco-friendly solution to hard water

Commercial & industrial models available for pipes up to 40”

Manufactured by

File No. E232081

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